



... THE ...

ANNUAL REPORT

UPON THE

Health & Sanitary Condition

OF THE

BOROUGH OF TUNBRIDGE WELLS,

For the Year ended the 31st December, 1908,

BY

WM. STAMFORD,

*Licentiate of the Royal College of Physicians, London,
Fellow of the Royal Institute of Public Health,*

Medical Officer of Health for the Borough,

WITH WHICH IS INCORPORATED
THE REPORT OF

JAMES CAVE,

*Associate of the Royal Sanitary Institute,
Associate of the Royal Institute of Public Health,
Associate of the Incorporated Society of Medical Officers of Health,*

Chief Sanitary Inspector for the Borough.



Borough of Tunbridge Wells, 1908.

Population Estimated to the middle of the year, 35,573.

Area of the Borough, 3,991 acres.

Rateable Value, £291,380.

CENSUS 1901.	{	Population, 33,373.
		Number of Inhabited Houses, 6,589.
		Average Number of Persons per House, 5·06.
		Density of Population, 8·3 Persons per acre.

Number of Deaths during 1908, 415.

Death-rate per thousand, 11·7. Average for previous ten years, 12·5.

Number of Deaths from Zymotic Diseases, 10. Death-rate from Zymotic Diseases, 0·3 per thousand of inhabitants.

Number of Deaths of Visitors, 16.

Death-rate if Visitors are excluded, 11·3 per thousand.

Number of Births during 1908. Boys, 296 ; Girls, 319 ; Total, 615.

Birth-rate per thousand, 17·3. Average for the previous ten years, 19·3 per thousand.

Infantile Mortality, 81·4 per thousand born. Average for the previous ten years, 94·4.

Mean Annual Temperature, 49·9° Fahr.

Hours of bright Sunshine recorded, 1,873 hours 37 minutes.

Total Rainfall, 29·53 inches.

ANNUAL REPORT.

*To the Mayor, Aldermen and Burgesses of the Borough
of Tunbridge Wells.*

GENTLEMEN,

I have again the pleasure of laying before you my report upon the health and sanitary condition of the Borough of Tunbridge Wells.

It is a matter of much gratification to me, as I am sure it must be to all who have the welfare of the inhabitants of this important Borough at heart, that I am able to report a further fall below anything hitherto recorded to indicate the rate of mortality among the members of the community since the vital statistics have been systematically kept, a period which carries us back for more than twenty years. It is worthy of note also that the death-rate (11·7) for the year 1908 is one of a series which, with very slight fluctuation, has shown a continuous tendency to fall, even as in this instance, below the lowest upon record.

Reporting upon the health of the Borough for the year 1900, I was able to say that only once had its low death-rate been beaten by that of any previous year. This was again the case in my report for 1903, while in that for 1906 the mortality rate had beaten all records, as that of 1908 does also.

But not only have I thus to speak of the general death-rate, since I find the Zymotic death-rate for the year was the mere fractional one of 0·3 per thousand, which is practically speaking a reduction to zero; though this is no new thing for me to

report in connection with the mortality from preventable diseases in this favoured district, for the same occurred no less than six times in the course of the last ten years.

I am therefore glad to be able to state that the health of the Borough during the year 1908 was up to the highest standard, and is able to compare most favourably with the health of the country generally, as well as with that of any town within its borders, while it places the Borough in the very front rank among towns of its size.

Making all due allowances for the exceptional circumstances which are to be met with in Tunbridge Wells—for instance its salubrious surroundings and healthful situation—it is not too much to claim a large measure of effectiveness, in bringing about the excellent conditions which prevail, for the Sanitary Authority and the staff under its control, whose untiring efforts, in providing good drainage, pure water and thorough sanitary efficiency in every department, have not been without their beneficial consequences in the prolongation of life and in making the most of the salutary possibilities to be found ready to hand.

Before proceeding further I must draw your attention to the fact that in compiling this report I am obliged to follow certain requirements of the Local Government Board which compel me to introduce matter with which you are already familiar. It is also on account of these requirements that this report is made out on somewhat different lines to those of preceding years. It has been my practice hitherto to include the report of the Chief Sanitary Inspector in the form of an appendix. This year the reports are incorporated.

Geology.—Tunbridge Wells is situated upon the Tunbridge Wells Sands, the highest division of the Hastings Beds or Sands, and the chief geological peculiarity is the exceptional character of the rocks which, interspersed with patches of the Weald Clay, underlie the whole district.

Situation and Natural Features.—The town is within an hour's railway journey of London. It has a magnificent expanse of peculiarly diversified common, which, while it has been wisely kept in a state of nature, is orderly and ably managed. This pleasant area comprises about 250 acres, and extends itself in the very centre of the town, supplying sheltered nooks for the invalid, aged, or constitutionally delicate, while affording to the robust, in need of bracing surroundings, all the advantages of an upland country, for upon the higher ground there is a view covering a magnificent country for many miles, whose extensive pine forests render the breezes which blow over them fragrant and exhilarating. The town is clustered about the common on the North, the East, and the South in so picturesque a fashion as to afford an unrivalled urban panorama from the commanding promenade known as Mount Ephraim.

Population.—The population of the Borough is estimated at 35,573 on June 30th, 1908, as against 35,273 on the corresponding date in 1907.

Births and Birth-Rate.—There were 615 births registered during the year—males, 296; and females, 319. This shows an increase of 20 births upon the returns of 1907, with a corresponding increase in the birth-rate from 16·86 to 17·3 per thousand of the inhabitants. The birth-rate for the whole of England and Wales, during the same period, was 26·5. While this increase, though slight, is gratifying, it must not be forgotten that it follows upon the lowest year for births recorded in the statistics for the Borough, nor that the figures for the previous year were higher still. Owing to sex and age distribution among the inhabitants of Tunbridge Wells, the birth-rate for the district is normally a low one; and in common with that for England and Wales it has been falling for several years. It is to be hoped that the downward limit was reached in 1907, and that the rise which commences with the year under review may continue to grow.

TABLE I.

Showing the Birth-Rate per thousand of the Inhabitants
for ten years.

1899	...	...	...	...	20·3
1900	...	...	...	...	20·5
1901	...	...	...	...	20·1
1902	...	...	...	...	20·1
1903	...	...	...	...	19·3
1904	...	...	...	...	18·7
1905	...	...	...	...	18·4
1906	..	...	...	...	19·3
1907	...	...	...	...	16·9
1908	...	...	...	...	17·3
Mean Birth-rate for Ten Years ...					19·3

Deaths and Death-Rate.—There were 436 deaths registered in the district during the year as against 454 deaths during the previous year, showing a decrease of 18 upon the gross mortality. Of this number 56 were not rightly belonging to the district, having occurred in the persons of non-residents who died while inmates of one or other of the public institutions; but against these I have to place the smaller number of 35 deaths which must be included in the returns for Tunbridge Wells, though they occurred, outside the Borough, in the persons of inhabitants who at the time of their deaths were absent temporarily from the Borough. By deducting 56 from the total of 436 and adding 35 I arrive at the net mortality for the year, which was 415 as against 481 for the year 1907. This shows a decrease of 66, and gives a death-rate of 11·7 per thousand of the inhabitants, as against 13·6 for 1907.

The death-rate for the whole of England and Wales for the year 1908 was 14·7.

TABLE II.

Comparison of the Death-Rates for ten years.

1899	...	...	...	...	14·8
1900	...	...	..	...	12·7
1901	...	...	...	...	12·9
1902	...	...	...	...	13·1
1903	...	...	...	...	12·4
1904	...	...	...	...	12·6
1905	...	...	...	...	12·4
1906	...	...	...	...	11·8
1907	...	...	...	...	13·6
1908	...	...	...	...	11·7
Mean Death-rate for Ten Years ..					12·5

From this table it will at once appear that not only was the death-rate for 1908 an extremely low one, but that it was absolutely the lowest for the whole decade. By going back still further, even so far as the earliest recorded death-rate for the Borough, I am able to state that it is the first time so low a rate of mortality has obtained. During the year 1907 I had to record that an exceptionally heavy loss had been experienced from two diseases—Whooping Cough and Measles—amounting to 33 deaths, as well as 22 from Epidemic Influenza, over none of which has it been hitherto possible to exercise useful sanitary control. Had this not been the case the last three years would have rivalled each other very closely for the laurel which has fallen to the year just closed.

Correction of Death-Rate for Foreign Mortality.—After the outside mortality adjustment, already made in respect of persons dying in public institutions inside and outside the Borough, which is allowed by the Local Government Board, it is permissible in a district like this, where the vital statistics are

affected in an exceptional manner by the influx of invalid lives which are nearing their close, that a correction for foreign mortality should be made. By foreign mortality I mean deaths occurring in the persons of visitors to the Borough of less than three months' residence before their demise, and it is just to exclude such deaths from the returns, though in striking the death-rate given in the returns made in the preceding paragraph of this report this has not been done. It has been my custom to devote a separate section to what I have called a Corrected Death-Rate, for some years past, and I do so again.

I find that of the 436 deaths registered in the district no less a number than 16 deaths, in the case of visitors whose stay had been less than three months in duration, may be classed as foreign to the statistics of the Borough, and may be deducted from the 415 deaths arrived at as the result of the previous adjustment. When this is done the death-rate sinks from 11·7 to 11·3 per thousand of the inhabitants, which I call the Corrected Death-Rate.

TABLE III.

Showing the influence of Foreign Mortality upon the Death-Rate for a period of ten years.

		Death-Rate.		Corrected Death-Rate.
1899	...	14·8	...	13·4
1900	...	12·7	.	11·4
1901	...	12·9	..	11·8
1902	...	13·1	...	11·9
1903	...	12·4	...	11·7
1904	...	12·6	...	12·3
1905	...	12·4	..	11·7
1906	...	11·8	...	11·3
1907	...	13·6	...	12·8
1908	...	11·7	...	11·3

Quarterly Returns.—The mortality of the first quarter of the year 1908 was considerably lighter than usual, though it again leads with the heaviest record for the four quarters of the year, as it almost invariably does, while that of the third quarter was again the lightest.

TABLE IV.

Showing the incidence of Mortality during the several quarters of the year 1908, with the corrections for Foreign Mortality.

		Number of Deaths.	Death-Rate.	Foreign Deaths.	Corrected Death-Rate.
1st Quarter	...	118	13·3	1	13·2
2nd Quarter	...	102	11·5	4	11·0
3rd Quarter	...	90	10·1	7	9·3
4th Quarter	...	105	11·7	4	11·3

TABLE V.

Quarterly Death-Rate per thousand per annum for a period of five years.

			1904	1905	1906	1907	1908
1st Quarter	...	...	15·2	15·1	15·0	18·6	13·3
2nd Quarter	...	...	12·2	12·0	9·6	12·5	11·5
3rd Quarter	...	...	9·3	10·1	10·9	10·6	10·1
4th Quarter	...	...	13·7	12·4	11·6	12·8	11·7

Mortality at Several Ages.—As might be expected from previous returns and from the fact that Tunbridge Wells affords so excellent an opportunity for aged people to enjoy favourable conditions of climate and peaceful surroundings, not easily to

be met with in any other district, there was again a large proportion of deaths at advanced ages, which account for no less than 54 per cent. of the deaths from all ages, though the year 1908 was a more than usually lenient one in this respect.

TABLE VI.

Showing Deaths at ages beyond Sixty Years.

Over 90 years of age	12
Under 90 and over 80	57
Under 80 and over 70	89
Under 70 and over 60	68
Total	226

This preponderance of mortality at ages beyond sixty years of age, which is common to the statistics of the Borough for year after year over a long period, must not be construed into anything but an indication that the health of the Borough is maintained at a very high level. Were it otherwise it would be impossible to show so large a proportion of the inhabitants attaining such advanced ages. All the same it shows a very great excess of aged lives in the community, a circumstance which must naturally be taken into account as tending to increase the general death-rate, out of proportion to the normal, which would obtain were it not for this overweighting of the population within that period of life wherein the mortality must of necessity be at its maximum. This excess of aged lives also, in some measure, accounts for the fact that there is habitually a low birth-rate. It is, however, a matter for great satisfaction to all dwellers in the Borough, that its attractions are of the high order indicated by the extraordinary influx of persons beyond the middle period of life, who seek for surroundings calculated to enhance the prospect of their reaching a green old age.

Infant Mortality.—Of the 615 births which took place during the year 1908 I find that 10 were premature. These were included among the deaths which occurred within the first year of life ; of which there were 50 as against 44 during the previous year. The mortality among infants therefore was rather heavier than in 1907, giving an Infantile Mortality Rate of 81·4 per thousand children born, as against 73·9 for 1907.

In Table XXII will be found a detailed statement of the deaths from the several causes at ages in weeks and months under one year.

TABLE VII.

Infant Mortality Rate per thousand Children born,
for a period of ten years.

1899 ...	...	..	...	...	119
1900 ...	...	...	...	...	121
1901 ...	...	...	..	..	81
1902 ...	...	...	...	...	101
1903 ...	...	...	..	...	76
1904 ...	...	...	...	...	98
1905 ...	...	..	...	...	73
1906 ...	...	...	...	...	82
1907 ...	...	...	...	...	73
1908 ...	...	...	...	...	81
Infant Mortality Rate throughout England and Wales during the year 1908...					121

Reference to the above table will show at a glance that there has been a most gratifying improvement in the ratio of losses to births in Tunbridge Wells during the last ten years ; but I am unable to state that low-water mark has been reached in the statistics of the year 1908, though they take a second

place in company with those of 1901, the year in which the improvement was first noticeable.

A low rate of infant mortality is a good set off against a low birth-rate in the influence of the former upon the death-rate of the Borough, and as this class of mortality is to a very large extent preventable by the spread of education and by the efforts of those who are able to devote themselves to the inculcation of the principles of hygiene in the homes of the poor, I am full of hope that in the near future there may be a still greater reduction of our already comparatively light infant mortality rate.

TABLE VIII.

**Mortality at several ages contrasted for a period
of five years.**

	1904	1905	1906	1907	1908
Deaths at under 1 year ...	63	46	56	44	50
„ 1 & under 5 years	31	15	9	44	18
„ 5 „ 15 „	8	13	8	13	12
„ 15 „ 25 „	15	13	13	11	14
„ 25 „ 65 „	139	146	146	144	125
„ 65 & upwards ...	177	198	181	225	196
Totals	433	431	413	481	415

Zymotic Diseases.—It is with great pleasure that I am able to report a Zymotic death-rate per thousand of the inhabitants of only 0·3, the only deaths from diseases having numbered 10 out of a total of 415 from all causes. These occurred as follows: Measles 3, Whooping Cough 3, Diphtheria 1, Diarrhœa 2, and Enteric Fever 1.

The Zymotic death-rate for England and Wales was 1·29.

TABLE IX.

Mortality from Zymotic Diseases for ten years.

	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Scarlet Fever	1	0	0	1	1	0	0	0	1	0
Enteric „	4	0	2	1	3	3	0	1	0	1
Erysipelas	4	2	4	0	0	0	0	0	1	0
Diphtheria and Mem- branous Croup ...	7	3	1	2	0	1	0	0	6	1
Diarrhœa and Dysentery	15	13	4	1	2	4	3	9	1	2
Small-pox	0	0	0	0	2	0	0	0	0	0
Measles	10	0	11	2	4	5	0	0	16	3
Whooping Cough ...	4	1	21	1	4	15	5	0	17	3
Total number of Deaths from Zymotic Diseases	45	19	43	8	17	28	8	10	42	10
Percentage upon Deaths from all causes ...	10·7	4·7	10·0	1·8	4·0	6·4	1·8	2·4	8·7	2·4
Zymotic Death-Rate per thousand living ...	1·4	0·6	1·3	0·2	0·4	0·8	0·2	0·2	1·1	0·3

Scarlet Fever.—There were 85 cases of this disease notified as having occurred within the Borough ; but there was no single instance in which death resulted. Of the 85 cases, 84 were removed for isolation and treatment to the Sanatorium; the other case having been too ill for removal was nursed and treated at home.

Two small outbreaks of this disease at the Hawkenbury Convalescent Home were probably caused by infection brought from London ; and another at the General Hospital was caused by a child suffering from the disease having been admitted to the Institution without its infectious character having been

recognised. These three outbreaks accounted for 20 notifications.

Another outbreak was traced by the exertions of the Sanitary Officials to a milk supply from outside the Borough. Very prompt measures were at once taken, with the result that the outbreak came to an end. In the matter of disinfection and re-establishing a safe basis for the supply from this source, the Ticehurst Rural District Council took action.

One case was that of a Nurse who contracted the disease while attending to her duties at the Sanatorium.

Scarlet Fever as experienced in this locality at the present time is of an exceedingly mild type, the loss by mortality having been only four cases in ten years, as will be seen from reference to Table IX. It is the practice to remove everyone notified as suffering from it to the Sanatorium with the least possible delay, and to thoroughly disinfect the quarters from which the removal was effected.

As in previous years I must again call attention to the laxity of parents in permitting children to remain without medical attention though suffering from the characteristic symptoms of this disease, against which so persistent a warfare has been waged for a long series of years, and which one might be hopeful of wiping out entirely if every case were brought under the notice of the Public Health Department, as they would be if medically treated. Especially is it essential to get control of the mild cases where only an ephemeral rash is noticeable, and where the sore throat is of the mildest type.

With the object of trapping these ambulatory cases I have impressed upon teachers that these cases must be looked for in attendance at school, and also the necessity for requiring

a medical certificate before the return of a scholar after a short absence. The schools have also been under my inspection, and I have instructed those in charge of the children with regard to the significance of such symptoms as sore throat, discharge from the nose or ear, and desquamation.

Enteric Fever.—There were 11 cases of this disease notified as having occurred. There was one death, which was in the person of a visitor.

All the cases, with the exception of the first recorded in the following list, were of foreign origin, and had nothing whatever to do with the health of the Borough.

Case No. 1. Cause not traced. This was the only case really belonging to the Borough.

Case No. 2. Contracted the disease at Brighton, and died at the General Hospital. The death was recorded at Brighton and does not appear in the record for this Borough.

Case No. 3. Contracted at Marseilles on the journey from India to England. The death is recorded as that of a visitor.

Case No. 4. Contracted at Brighton. Death occurred in Tunbridge Wells, but death was certified as resulting from Colitis.

Cases Nos. 5, 6 & 7. Imported from Southborough and Sevenoaks to the General Hospital for treatment.

Case No. 8. Contracted at Deal during a holiday.

Case No. 9. Contracted while hopping at Pembury.

Case No. 10. A Gipsy child brought in from Crowborough for treatment at the General Hospital and found to be suffering from Enteric Fever.

Case No. 11. No cause traced. Examination of the blood was made with a negative result.

In all there were eight cases treated at the General Hospital, including six of the imported ones.

Erysipelas.—There were 11 cases but no deaths.

Diphtheria and Membranous Croup.—There were 29 cases notified. All recovered except a child whose case was not recognised early, and who was afterwards admitted to the Sanatorium in a moribund condition. The disease was prevalent in the surrounding districts, and it was probably introduced in this way. Four were directly traced to other places—two to Pembury, one to London, and one to Sevenoaks. One of the cases notified was that of a Nurse at the Sanatorium, who contracted the disease while engaged upon her duties. Several Charitable Institutions in the town were responsible for five cases.

The gratuitous distribution of Antitoxin for use in the treatment of necessitous cases has been continued, and has been much appreciated. Considerable use has again been made of the privilege given to medical men to avail themselves of the facilities provided by the Corporation for the verification of doubtful cases.

Diarrhœa.—There were only two deaths from this disease, and they occurred in the cases of infants under one year of age. This low mortality from a disease which, in the summer months, is looked upon as a scourge of most towns, speaks very highly for the sanitation during the hot season, and also for the effective instruction which is disseminated among the poor by many who have the saving of infant life at heart. During the preceding year there was only one death.

Small-pox.—No case occurred.

Measles.—This disease was prevalent during the last quarter of the year, both in the form of Rotheln, or German Measles, and of Rubeola. There were three deaths recorded. I cannot close this paragraph without once more adverting to the false sense of security felt by the parents of children affected with Measles. They are misled into the belief that no fear need be entertained regarding the ultimate recovery of the little patient, and they often neglect to call in a doctor until some fatal complication has set in. It is a disease of great virulence, and perhaps the most to be dreaded of all the infectious diseases of children. It is during convalescence that the more serious complications are apt to arise, and I cannot too forcibly express my feeling that mothers should be taught the necessity for medical attention throughout the attack.

Whooping Cough.—There were three deaths from this disease. The statistics, of the country generally, show this disease to be one of the most fatal to young lives; and it is not sufficiently realized that much can be done medically by the more recent methods of treatment to cut short or even to abort an attack. Parents are too prone to think nothing can be done, and the mortality is proportionally heavier than it ought to be if children were properly treated. One of the reasons for the spread of Whooping Cough is the permission often accorded to sufferers from the disease to take the air without regard to the necessity for preventing the expectoration of contaminating and germ-laden sputa upon the side-walks of the public thoroughfares.

Because of the prevalence of this disease, and of Measles, I was obliged to order the closure of St. Mark's Infant School for fourteen days from November 25th.

Puerperal Fever.—There were two cases notified, but no death.

Notification of Infectious Diseases.—138 cases of infectious diseases were notified to me under the provisions of the Infectious Diseases (Notification) Act, 1889 and 1899. They were as follows :—

Scarlet Fever	...	...	...	85 cases.
Diphtheria	...	...	...	29 „
Enteric Fever	...	..	...	11 „
Puerperal Fever	...	...	...	2 „
Erysipelas	...	...	...	11 „
Total	...	...	...	138 „

TABLE X.

List of Works carried out under the Infectious Diseases Acts during 1908.

228	Visits have been made to infected houses.
355	Rooms disinfected.
7879	Articles of clothing disinfected.
2	Loads of Bedding removed to the steam disinfectors and returned to their respective owners.
51	Visits to flush w.c.'s and drains.
12	Visits to disinfect public buildings.
8	Visits to disinfect St. John's Ambulance and private carriages.
20	Visits to disinfect wards at Hospital.
1	Load of Bedding destroyed.

Bacteriological Examinations.—There were 49 examinations made during the year, 38 for Diphtheria and 11 for Enteric Fever, with the following results :—

Diphtheria—

The Klebs-Loeffler Bacillus absent,	cases not notified	23
„ „ „	cases notified	3
„ „ „	present, cases notified	12

Enteric Fever—

Widal's Reaction positive,	cases notified	...	...	3
„ „ negative,	cases not notified	...	...	7
„ „ „	cases notified	...	...	1

Tuberculosis.—At the time of closing my report I have received a copy of a circular letter and regulations in respect to Tuberculosis, issued by the Local Government Board. An order is given in pursuance of Section 130 of the Public Health Act, 1875, which provides for the notification to the Medical Officers of Health to Sanitary Authorities of cases of Pulmonary Tuberculosis occurring among the inmates of Poor Law Institutions, or among persons under the care of District Medical Officers, and for taking certain measures in such cases. These regulations, if strictly carried out, will entail an enormous increase of work for Public Health Officials.

It is a happy circumstance in connection with the statistics of this disease within the Borough, that the mortality connected with it is steadily falling, that for the year 1908 being the lowest upon record.

Up to the present there has been no system whatever in vogue for the notification of cases of the disease, either compulsory or voluntary, neither is there any special hospital accommodation provided, and the majority of the cases occurring among the poorer classes are received into the Union Infirmary.

Among the local predisposing influences in the causation of Phthisis are poverty, overcrowding, and above all deficiency in ventilation and light and a want of cleanliness. I have recently found when visiting houses which had been reported to me as requiring disinfection, that the provision of more light, better ventilation, and a resort to thorough cleansing would do more good than disinfection. Bedrooms particularly I have found to be in a most unhealthy state by reason of the care with which the natural means of ventilation have been abolished by blocking up the chimneys and pasting over the fireplaces and window sashes with paper to exclude draughts, and obscuring the light by the use of heavy curtains.

Persons suffering from this disease should be isolated as far as possible from the healthy, and they should occupy roomy and airy apartments. They should be prevented from spitting upon the floors of rooms and workshops, and be provided with proper receptacle containing a disinfectant for use as a spitting vessel, and outside they should be taught to use a portable spitting pot made for the purpose, or pieces of rag which can be burnt when they return to their homes.

Cancer.—Throughout the country there has for many years been a manifest increase of mortality from this disease, and a reference to Table XXI. will show that Tunbridge Wells has suffered in the same way. While the proportion of deaths from Tuberculosis has tended to fall, that from Cancer has shown a decided disposition to rise. Nevertheless, it must not be assumed that this rise in the number of deaths from Cancer goes without question, because it is the opinion of many authorities most capable of judgment that the rise is more apparent than real. It is asserted, and I think with truth, that since the introduction of abdominal surgery, a vast proportion of the cases of Cancer are disclosed, whereas in earlier times such operations were rarely undertaken, and the diagnosis of Cancer was, therefore, apt to be a doubtful one if made.

Infectious Diseases.—In all cases of infectious diseases, the disinfection of the rooms and all bedding and clothing likely to retain infection is carried out by the Officers of the Public Health Department, excepting when it is done under the supervision of the Medical Attendant (which is very seldom). The bedding and clothing is removed, if necessary, by specially constructed van to the steam disinfector, and after disinfection delivered back to the owner. (The same van is not used for the two processes.)

The Public Health Act, 1875, gives power to the Local Authority to serve notice on the occupier of any premises

requiring him, within a specified time, to cleanse and disinfect any such premises or part thereof and any article therein likely to retain infection, and on his failing to comply, the Local Authority may do the work themselves and recover the expenses incurred in a summary manner. This method of dealing with infected rooms and bedding is cumbersome, we therefore undertake and do the work ourselves when we are satisfied that it is really necessary in the interests of public health.

Notifications are sent to the various weekday and Sunday School Superintendents of the schools attended by children in the infected houses, informing them of the infection and requesting them not to allow children from the infected houses to attend school for a stated period, and notices are sent to the various lending libraries so as to avoid possible infection by books.

A thorough inspection of the house and any other premises that may be in touch with the case is made, and a test applied to the drains and sanitary fittings, and if any defects are found to exist, steps are taken to have them remedied.

Other duties in connection with source of milk supply, and outworkers in connection with factories and workshops, receive due attention.

Notifications are also sent to both schools and libraries when the houses are judged to be free from infection.

Medical Inspection of Children in Public Elementary Schools.—Section 13 of the Education (Administrative Provisions) Act, 1907, concerning medical inspection of school children, and which came into operation on the 1st January, 1908, provides for the medical inspection of children immediately before, or at the time of or as soon as possible after their admission to a Public Elementary School, and on such other occasions as the Board of Education direct, and the power to

make such arrangements as may be sanctioned by the Board of Education for attending to the health and physical condition of the children educated in Public Elementary Schools.

The Town Council, at their meeting held on the 1st January, 1908, passed the following resolution :—

That, in accordance with the opinion of the Board of Education, set out in the Memorandum issued by them on the Medical Inspection of Children in Public Elementary Schools, under Section 13 of the Education (Administrative Provisions) Act, 1907, the Medical Officer of Health be instructed to advise the Borough Education Committee as to the best means of carrying out the provisions of Section 13 (1) (*b*) of the Act ; and, in view of the fact that the Board of Education, in the Memorandum, state that in the first year, 1908, it may prove impracticable to attempt more than the inspection of the children newly admitted, and those leaving the school, that the Medical Officer of Health be asked to limit his advice to the inspection during the year 1908 of children admitted to Elementary Schools, those leaving Elementary Schools, and to any children specially indicated by the Authorities of the respective schools as requiring inspection.

The Report of the Medical Officer of Health on the Medical Inspection of Children under Section 13 (1) (*b*) of the Education (Administrative Provisions) Act, 1907, was laid before the Borough Education Committee on the 27th January, 1908, and the Committee ultimately, on the Report of their School Attendance Sub-Committee, framed a scheme for the establishment of an Elementary School Medical Department for the Borough, consisting of the Medical Officer of Health, three Medical Officers and a Nurse, the duties assigned to the various officers being as follows :—

Medical Officer of Health.

To generally supervise the work of the Department.

To receive and tabulate the returns.

To report to the Education Committee and the Board of Education.

Medical Officers.

To correspond with school teachers.

To correspond with parents.

To examine school children.

To prepare returns and forward them to the Medical Officer of Health.

Nurse.

To attend on the Medical Officers.

To follow up cases where so instructed by a Medical Officer.

To generally carry out the instructions of the Medical Officer of Health and Medical Officers.

The scheme came into operation on the 1st May, 1908, and the classes or groups of children for whose inspection (during the period 1st May, 1908, to the 30th April, 1909) provision has been made are as follows:—

1. Children admitted to Public Elementary Schools.
2. Children leaving Public Elementary Schools.
3. Children specially indicated by the authorities of the respective schools as requiring inspection.

Elementary Schools.—Periodical visits have been made during the past year.

There was no outbreak of notifiable disease directly attributable to the schools, and the association of the children did not appear to be responsible for any cases that were notified.

The drainage and sanitary fittings are considered to be generally satisfactory. I may say some of the schools are absolutely up-to-date from a sanitary point of view, others have fittings that, although causing no actual nuisance, will require sooner or later to be removed and more modern ones supplied.

All the schools, with one exception, are drained into the corporation sewers, the school excepted is so situate that it is impossible at the present time to do so, but the arrangements provided cause no nuisance or complaint.

The town water supply is laid on to all schools, and in most instances is drawn direct from the rising main.

As occasion requires, the schools are disinfected and cleansed, in order to provide for the health of the scholars, and for preventing the spread of infectious disease.

I desire to record my appreciation of the able manner in which the masters and teachers of the various schools look after the children, and the ready manner in which I am assisted in my work by one and all of them.

Water Supply.—The Borough is provided with an adequate water supply of great purity derived from a number of springs in the Tunbridge Wells Sands, and from deep borings through the Wadhurst Clay into the Ashdown Sands. The gathering grounds of the springs are mostly woodland and pasture land and are constantly kept under close inspection. The spring supplies gravitate to a large open storage reservoir, and are filtered through sand filters before delivery to the town. The underground waters are also of excellent quality and treated for the removal of iron in solution by a special process of compressed air oxidising mechanical filters of the "Candy" type. The supply is of about four or five degrees hardness, and no cases of plumbo-solvent action have occurred.

Sewerage, Drainage, and Sewage Disposal.—The town is well drained by a system of sewers, which are maintained in a good state of repair, and the sewage is delivered to two sewage farms having a total area of 386 acres, where it is treated on the broad irrigation principle, assisted at one of the farms by percolating bacteria beds. The drainage of all new buildings is constructed upon sound sanitary principles and is subjected to the “water test” before approval by the Corporation.

Rivers and Streams.—All water courses are regularly inspected at frequent intervals, and no cases of pollution are permitted.

The Factory and Workshop Act, 1901.—This Act came into force on January 1st, 1902. It requires that: “The Medical Officer of Health of every District Council shall in his Annual Report to them report specifically on the administration of the Act, and he shall send a copy of his Annual Report, or so much of it as deals with the subject, to the Secretary of State.”

I append a copy of the tables made out as required by the Home Office, showing particulars of works carried out that lend themselves to statistical treatment.

In accordance with the provisions of Section 131, a register is kept of all workshops situate within the district. The schedule of the register records the following information:—Date, name and address of occupier, situation of workshop, nature of work carried on and amount of moving power, number and description of workers, cubic capacity, sanitary accommodation and means of escape from fire. With regard to bake-houses, extra information is obtained and recorded with respect to the lighting and ventilation. To keep this register complete is a very difficult matter by reason of the opening and closing of different premises, the changing of outworkers and alteration of proprietorship.

TABLE XI.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES,
AND HOMEWORK.

(Home Office No. 1.)—INSPECTION.

INCLUDING INSPECTIONS MADE BY CHIEF SANITARY INSPECTOR AND
HIS ASSISTANTS.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories... (Including Factory Laundries).	21		
Workshops (Including Workshop Laundries).	430		
Workplaces (Other than Outworkers' premises included in Part 3 of this Report).	1389		
Total	1840	Nil.	Nil.

TABLE XII.

(Home Office No. 2.)—Defects found in Factories,
Workshops and Workplaces.

Particulars.	Number of Defects			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness... 	65	65	Nil.	Nil.
Overcrowding 	1	1	„	„
Other nuisances 	43	43	„	„
† Sanitary accommodation } unsuitable or defective ...	5	5	„	„
<i>Offences under the Factory and Workshop Act:—</i>				
Breach of special sanitary requirements for bakehouses (ss. 97 to 100) 	4	4	„	„
Total 	118	118	Nil.	Nil.

* Including those specified in sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.

† For districts not in London state here whether section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council; and if so what standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops has been enforced.

Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted, and the standard of sufficiency and suitability enforced is as follows :—“That one W.C. be required for every 20 females, and subject to sufficient urinal accommodation being provided, one W.C. be required for every 25 males.”

TABLE XIII. (Home Office No. 3.)—HOME WORK.

NATURE OF WORK*	OUTWORKERS' LISTS, SECTION 107.										OUTWORK IN UN- WHOLESOME PREMISES, SECTION 108.				OUTWORK IN INFECTED PREMISES, (SECTIONS 109, 110).			
	Lists received from Employers.				Addresses of Outworkers		Prosecutions.		Inspections of Outworkers' premises. (13)	Instances. (14)	Notices served. (15)	Prosecutions. (16)	Instances. (17)	Orders made. (S. 110). (18)	Prosecutions. (Sections 109, 110). (19)			
	Sending twice in the year.		Sending once in the year.		Outworkers		Failing to keep or permit inspection of lists. (11)									Failing to send lists. (12)		
	Outworkers †		Lists.		Outworkers †		Occupiers as to keeping or sending lists. (10)									Forwarded to other Councils. (9)		
	Lists. † (2)	Con- tractors (3)	Work- men. (4)	Con- tractors (5)	Work- men. (6)	Outworkers † (7)	Received from other Councils. (8)	Forwarded to other Councils. (9)								Notices served on Occupiers as to keeping or sending lists. (10)	Failing to keep or permit inspection of lists. (11)	Failing to send lists. (12)
(1)	18	2	44	9	...	37	8	13	13	Nil.	Nil.	132	Nil.	2	Nil.	Nil.		
Wearing Apparel— Making, &c. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
No Outworkers' Lists received for any of the other 30 trades enumer- ated in the Home Office Table.																		

* If an occupier gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class *only*, but the outworkers should be assigned in columns 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

† The figures required in columns 2, 3 and 4 are the *total* number of the lists received from those employers who comply strictly with the statutory duty of sending *two* lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be *even* numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

TABLE XIV.

(Home Office No. 4.)—REGISTERED WORKSHOPS.

Workshops on the Register (Sec. 131) at the end of the year.	Number.
Important classes of workshops, such as workshop bakehouses, may be enumerated here. {	
Bakehouses	45
Dressmakers and Milliners ...	66
Tailors	27
Laundries	42
Various	112
Total Number of Workshops on Register	292

TABLE XV.

(Home Office No. 5.)—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)... ..	Nil.
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) {	
Notified by H.M. Inspector	6
Reports (of action taken) sent to H.M. Inspector...	6
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	Nil.
In use at the end of the year	13

NOTE.—The Factory and Workshop Act, 1901 (s. 132) requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, laundries, workplaces or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of December, 1904. A further Memorandum, on the Home Work Provisions of the Factory Act, was issued to all District Councils and Medical Officers of Health in October, 1906.

The majority of the workshops in the town are provided with a system of maintainable ventilation. The system recommended generally is the provision of a fresh-air inlet on an outside wall (a few inches from the ceiling), so constructed as to prevent actual draught to the workers, and an outlet in the chimney breast or other suitable place. Many of the workers highly appreciate this improvement.

The air space of the majority of the workshops, &c., has been ascertained, and tickets stating the cubic capacity and the number of persons that may be employed therein during day-time and overtime are being fixed in each room. This is in addition to the prescribed abstract of the Act.

During the year, 1,840 visits of inspection have been made in order to secure observance of the provisions of the law in regard to cleanliness, ventilation, overcrowding, drainage of floors, sanitary accommodation and proper means of escape from fire. 118 defaults were discovered and means taken to remedy same.

The administration of the law in respect of Factories and Workshops is in the hands of two Authorities, *i.e.*, H.M. Inspector of Factories and the Local Authorities. The duties and powers assigned to each authority are so complicated that it is often a difficult matter to dissect them.

Particulars in respect of 11 workshops were reported by H.M. Inspector, which had been formally reported to him by the occupiers. Six complaints were received from the Home Office during the year, referring to neglect as to limewashing, which received immediate attention.

The work in connection with outworkers and home work steadily increases. The Home Office Orders now include some 31 different trades, and all persons connected with such trades are required to keep on the premises lists of names and

addresses of outworkers employed by them, and to forward copies of same to the Sanitary Authorities on or before the 1st of February and the 1st of August in each year. These lists have not been sent in as regularly as they should be. Every authority must cause the lists to be examined, and furnish the name and place of employment of every outworker included in any such list whose place of employment is outside its district to the Council of the district in which his place of employment is.

The register of outworkers is always examined when a notification of infectious disease is received, in order, if necessary, to stop work being given out to any person who may be in contact with infection.

Infectious disease occurred at two outworkers' homes, and in each case full precautions were taken against the spread of the disease, and it was not necessary to make any orders under Section 110 of the Factory and Workshops Act, 1901.

There have been 27 lists of outworkers sent in during the year by persons trading within the Borough, containing the names and addresses of 81 persons.

Thirteen names and addresses have been forwarded by us to other Councils, and we have received from other Councils the names and addresses of eight persons.

No certificates for means of escape from fire have been given, there having been no new factory or workshops established employing over 40 persons.

The means of escape provided in existing workshops employing over 40 persons is considered satisfactory.

During the year the means of escape from fire from one workshop employing more than 40 persons was considerably improved.

TABLE XVI.

List of Workshops (as per Section 131) on the Register at
the end of 1908.

WORKSHOPS.	No. on Register.	Persons employed.		Total.
		Male.	Female.	
Bakers	45	116	—	116
Basket Maker	1	3	—	3
Blacksmiths	12	49	—	49
Boot Makers	5	20	—	20
Builders and Carpenters	40	300	—	300
Cycle Manufacturers	8	24	—	24
Cabinet Makers	6	30	—	30
Carvers and Gilders	3	6	—	6
Carriage Builders	6	30	—	30
Confectioner	1	3	—	3
Dressmakers and Milliners	66	—	491	491
French Polisher	1	2	—	2
Gas and Hot Water Fitters	4	48	—	48
Laundresses	42	11	122	133
Monumental Masons	3	12	—	12
Picture Frame Makers... ..	2	4	—	4
Saddlers and Harness Makers... ..	6	17	—	17
Sign Writer	1	2	—	2
Scale Makers	2	5	—	5
Tailors	27	72	2	74
Telephone Fitter	1	4	—	4
Undertakers	2	7	—	7
Upholsterers	6	19	4	23
Umbrella Manufacturer	1	1	1	2
Watchmaker	1	4	—	4
	292	789	620	1409

TABLE XVII.

List of Factories and Workplaces on the Register at the
end of 1908.

FACTORIES.	No. on Register.	Persons employed.		Total.
		Male.	Female.	
Brewer	1	8	—	8
Cabinet Maker	1	5	6	11
Carpet Beating Works... ..	1	3	—	3
Carriage Builder	1	25	—	25
Coffee Roaster	1	2	—	2
Cycle Manufacturer	1	6	—	6
Electrical Engineer	1	2	—	2
Engineer	1	2	—	2
Electric Light Works	2	22	—	22
Gas Works	1	40	—	40
Laundries	4	15	179	194
Mineral Water Factories	4	19	—	19
Motor Car Works	1	2	—	2
Photographers... ..	2	23	25	48
Printers	11	150	11	161
Saw Mills	2	32	—	32
Stone Breaker... ..	1	12	—	12
Tonbridge Ware Factory	1	7	3	10
Wood and Metal Letter Maker	1	3	—	3
	38	378	224	602
WORKPLACES.				
Including—				
Restaurant Kitchens, Livery Stable } Yards, &c., &c., &c. }	83	328	35	363
Totals	121	706	259	965

TABLE XVIII.

(Local Government Board No. 1.)

Vital Statistics of Whole District during 1908 and Previous Years.

Year	Population estimated to Middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institu- tions in the District.	Deaths of Non- residents registered in Public Institu- tions in the District.	Deaths of Residents registered in Public Institu- tions beyond the District.	Nett Deaths at all Ages belonging to the District.	
		Number.	Rate *	Under 1 year of Age.		At all Ages.					Number.	Rate *
				Number.	Rate per 1,000 Births Registered	Number.	Rate *					
1	2	3	4	5	6	7	8	9	10	11	12	13
1898	30,615	611	19.95	71	116.00	424	13.84	21	—	—	392	12.80
1899	30,975	629	20.30	75	119.23	460	14.80	35	—	—	418	13.40
1900	31,335	641	20.45	78	121.68	399	12.73	31	—	—	357	11.39
1901	33,433	673	20.1	55	81.7	432	12.90	35	—	—	396	11.84
1902	33,773	680	20.13	69	101.47	430	12.73	43	24	38	444	13.14
1903	34,073	657	19.28	50	76.10	407	11.94	37	24	39	422	12.38
1904	34,373	641	18.64	63	98.28	418	12.16	42	25	40	433	12.59
1905	34,673	639	18.42	47	73.55	419	12.08	52	29	41	431	12.43
1906	34,973	676	19.32	56	82.84	406	11.60	66	36	43	413	11.80
1907	35,273	595	16.86	44	73.94	454	12.87	60	28	55	481	13.63
Averages for years 1898-1907.	33,349	644	19.3	60	94.4	424	12.7	42	—	—	418	12.5
1908	35,573	615	17.3	50	81.4	436	12.3	81	56	35	415	11.7

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

NOTE.—The deaths to be included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public Institutions" to be taken into account for the purposes of these Tables are as follows:—The General, the Homœopathic, and the Eye and Ear Hospitals, the Kent Nursing Institution, and Tunbridge Wells Sanatorium, situate within the district; the Tonbridge and Ticehurst Union Workhouses and the Small-pox Hospital at Dislingbury, near Capel, situate beyond the district.

Area of District in Acres (exclusive of area covered by water) 3,991; Total population at all ages, 33,373; Number of inhabited houses, 6,589; Average number of persons per house, 5.06. At census of 1901.

The numbers in Italics in columns No. 12 and 13 are not quite correct owing to the fact that the particulars for columns No. 10 and 11 were not obtained previous to 1902.

TABLE XIX. (Local Government Board No. 2.)
Vital Statistics in 1908 and previous years

Year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1898	30,615	611	392	71
1899	30,975	629	418	75
1900	31,335	641	357	78
1901	33,433	673	396	55
1902	33,773	680	444	69
1903	34,073	657	422	50
1904	34,373	641	433	63
1905	34,673	639	431	47
1906	34,973	676	413	56
1907	35,273	595	481	44
Averages of Years 1898 } ... to 1907 }	33,349	644	418	60
1908	35,573	615	415	50

TABLE XX. (Local Government Board No. 3.)
Cases of Infectious Disease notified during the Year 1908.

Notifiable Disease.	Cases notified in whole District.							Total Cases removed to Hospital.
	At all Ages.	At Ages—Years.						
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	
Diphtheria, including Membranous Croup	29	—	6	15	7	1	—	19
Erysipelas	11	—	—	—	1	8	2	—
Scarlet Fever	85	—	20	49	12	4	—	84
Enteric Fever	11	—	—	4	3	4	—	8
Puerperal Fever	2	—	—	—	—	2	—	—
Totals	138	—	26	68	23	19	2	111

The Accommodation provided for the treatment of Infectious Diseases is as follows :—

THE SANATORIUM (The Tunbridge Wells Isolation Hospital)	Scarlet Fever ...	48 Beds.
situate in Tunbridge Wells	Diphtheria ...	6 Beds.
THE GENERAL HOSPITAL, situate in Tunbridge Wells (the Authorities are under an Agreement to treat all cases of Enteric Fever and cases of Diphtheria that require Surgical Treatment) ... ..	... ..	All Beds required.
THE DISLINGBURY HOSPITAL for Small-pox and Plague, situate at Capel in the Tonbridge Rural District, belonging to the Joint Hospital Board of the Tunbridge Wells Corporation, the Tonbridge Urban District Council, the Southborough Urban District Council, and the Tonbridge Rural District Council ... ..	... ..	20 Beds.

TABLE XXI.
(Local Government Board No. 4.)

Causes of, and Ages at, Death during Year 1908.								
CAUSES OF DEATH. (1)	Deaths at the Subjoined Ages of "Residents" whether occurring in or beyond the District.							Total Deaths whether of residents or non-residents in Public Institutions in the District.
	All Ages. (2)	Under 1 year. (3)	1 and under 5 (4)	5 and under 15 (5)	15 and under 25 (6)	25 and under 65 (7)	65 and upwards. (8)	
Small-pox ... ..	...	...	...	...	...	...	...	...
Measles	3	...	3	...	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...	1
Whooping Cough... ..	3	2	1	...	...	...	...	...
Diphtheria (including Membranous Croup)	1	...	1	...	...	...	...	2
Croup ... ..	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...
{ Enteric	1	...	...	...	...	1	...	1
{ Other continued	...	...	...	...	...	...	...	...
Epidemic Influenza ...	14	...	1	...	...	3	10	...
Cholera ... ..	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...
Diarrhœa	2	2	...	...	...	...	...	1
Enteritis	4	2	1	...	...	...	1	2
Puerperal Fever ... ..	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	20	1	...	2	5	12	...	2
Other Tuberculous Diseases	14	3	2	3	2	3	1	2
Cancer, Malignant Disease	48	...	...	1	1	16	30	13
Bronchitis	24	5	...	...	...	7	12	1
Pneumonia	13	3	1	2	1	4	2	2
Pleurisy	2	...	...	...	...	1	1	...
Other Diseases of Respiratory Organs	4	...	...	...	...	2	2	...
Alcoholism	3	...	...	...	...	2	1	...
Cirrhosis of Liver }	...	...	...	...	...	...	...	...
Venereal Diseases ...	1	1	...	...	...	...	...	...
Premature Birth	10	10	...	...	...	...	...	...
Diseases and Accidents of Parturition ..	1	1	...	...	...	...	...	...
Heart Diseases	61	3	...	...	1	23	34	3
Accidents	5	...	2	...	...	2	1	7
Suicides	3	...	...	...	...	3	...	...
All other Causes	178	17	6	4	4	46	101	44
All Causes	415	50	18	12	14	125	196	81

TABLE XXII. (Local Government Board No. 5.)

INFANTILE MORTALITY DURING THE YEAR 1908.

Deaths from stated Causes in Weeks and Months under 1 Year of Age.

CAUSE OF DEATH.				Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under 1 Year
ALL CAUSES.	{	Certified ... ..	...	9	4	6	4	23	2	4	...	1	6	4	2	1	2	1	1	47
		Uncertified ... ..	...	1	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	3
Common Infectious Diseases	{	Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Diphtheria: Mem. Croup... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Whooping Cough ... ..	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	1	...	2
Diarrhoeal Diseases	{	Diarrhœa, all forms... ..	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
		Enteritis, Muco-enteritis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Gastro-enteritis	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	3
		Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wasting Diseases.	{	Premature Birth ... ..	...	7	2	...	1	10	...	...	...	...	...	...	...	...	...	...	...	10
		Congenital Defects ... ..	...	1	1	1	...	3	1	...	...	...	...	...	...	...	...	...	1	5
		Injury at Birth ... ..	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
		Want of Breast-Milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Starvation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuber- culous Diseases	{	Atrophy, Debility, Marasmus	...	...	3	1	...	4	1	1	...	...	...	...	...	...	...	...	...	6
		Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Tuberculous Peritonitis: Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
		Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	3
Other Causes.	{	Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Syphilis ... ..	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1
		Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Convulsions ... ..	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	2
		Bronchitis ... ..	...	...	...	...	1	1	...	1	...	...	2	1	...	...	...	...	...	5
		Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Pneumonia ... ..	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	3
		Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Other Causes ... ..	...	1	1	2	...	4	...	2	1	...	...	...	...	...	...	...	...	7
				10	4	6	4	24	2	4	1	1	7	4	2	1	2	1	1	50

Population estimated to middle of 1908 35,573

BIRTHS IN THE YEAR.

Legitimate 580

Illegitimate 35

Deaths from all Causes at all Ages

DEATHS IN THE YEAR.

Legitimate Infants 48

Illegitimate Infants 2

... .. 415

Shop Hours and Seats for Shop Assistants Acts.—The provisions of these Acts are briefly :—

“No young person (‘young person’ means a person under the age of 18) shall be employed in or about a shop for a longer period than 74 hours, including meal time, in any one week. In every shop in which a young person is employed a notice shall be kept exhibited in a conspicuous place referring to the provision of the Act.

“In all rooms of a shop where females are employed in the retailing of goods to the public, the employer shall provide seats in the proportion of not less than one seat to every three females employed.

“Penalties of 40/- to £5 are provided for non-compliance with these Acts.”

During the year some 209 visits have been made. No complaints have been made in regard to the hours of employment of any young person, or the non-provision of seats.

General Sanitary Work.—A great deal of useful sanitary work has been carried out, which is the result of persistent efforts in the right direction.

The terrible storm which occurred on the evening of the 4th of June, brought about an enormous amount of work for which there is very little to show.

As much time as possible has been given to house to house inspection and the supervision of work undertaken to remedy sanitary defects; the mere detection of these defects is of little value unless followed up and means taken to ascertain that a remedy has been applied.

I cannot speak too highly of the loyal and painstaking method with which Mr. James Cave, the Chief Sanitary Inspector, carries out the work of the office. He has done a considerable amount of work after the recognised office hours and on Sundays in a most ungrudging manner and I have to

TABLE XXIII.

List of Works carried out under the Public Health and Tunbridge Wells Improvement Acts during 1908.

94	Complaints received and investigated.
65	Premises in respect of which notices have been served.
718	Houses, drains and sanitary fittings inspected.
2053	Visits of re-inspection or to works in course of progress.
48	Drains re-constructed.
43	Drains repaired.
21	Choked drains cleared and cleansed.
131	Inspection chambers constructed.
32	Inspection chambers repaired.
80	Drain ventilation shafts erected or repaired.
29	Soil pipes erected.
25	Soil pipes repaired.
126	W.C.'s re-constructed and provided with flushing apparatus.
11	Flushing apparatus repaired.
257	Efficient traps substituted for inefficient ones.
159	Rain-water and waste pipes disconnected from drains and made to discharge over properly trapped gullies.
63	Yards and areas paved or paving repaired.
5	New w.c. buildings and apparatus constructed.
2	W.C.'s ventilated to outside air.
29	W.C.'s cleansed and repaired.
6	Defective w.c. buildings condemned and demolished.
35	New sinks provided.
29	New lavatory basins provided.
119	Old sinks provided with new waste pipes.
3	Urinals provided at licensed premises.
53	Eaves gutters repaired.
86	Windows repaired.
41	Floors repaired.
9	Air inlets under floors provided.
47	Roofs repaired.
11	Defective cisterns abolished and water supply taken from rising main.
86	Houses provided with sufficient supply of water.
3	Samples of water submitted for analysis.
179	Rooms cleansed and limewashed.
81	Dustbins provided or repaired.
3	Cesspools abolished.
81	Various improvements.
478	Hours' observation work.
23	Pigs removed.
283	Chicken, ducks, etc., removed.
3136	Inspections of stable yards and manure pits.
848	Offensive accumulations removed.
5	Stables paved and drained.
140	Inspections of slaughter houses.
128	Inspections of cowsheds, dairies, and milkshops.
112	Inspections of common lodging houses.
570	Inspections of food shops.
520	Parcels of food examined.
1418	lbs. food unfit for human consumption seized and destroyed.
1373	Visits, interviews, etc., <i>re</i> work to be carried out.

thank him for having assisted me to a considerable extent in the preparation of this report.

Many anonymous complaints received are found to be made for some malicious purpose, some of them very pronouncedly so, and in the future no notice whatever will be taken of complaints unaccompanied by the names and addresses of the complainants. In every instance the source of complaint is treated strictly confidentially.

Again, I find that many persons waste the Inspector's time by sending for him to clear choked drains or cleanse a dirty gully, causing a nuisance for which the parties complaining are liable. It seems that the more reliance this class of person is allowed to place upon the Sanitary Authority to rid them of nuisances of their own creation, the more they expect from the Inspector.

I cannot speak too strongly concerning the practice of some, the less reputable, among the builders, of doing sanitary work without giving notice to the Sanitary Authority. This is most reprehensible, though no regulation exists to stop it, and the result is that some very defective work is undertaken and done, all trace of it being covered up, only to be discovered later when some evil consequence, great or small, has arisen. I have quoted some glaring cases of interference with drainage works recently completed, and the laying down of imperfect or defective drainage, in my reports for recent years, and I trust some useful regulation may be passed to prevent the occurrence of such things in the future. (*Vide* Annual Reports for 1899, 1900 and 1905).

TABLE XXIV.

Summary of Proceedings.

<p>It was not found necessary to take any legal proceedings in respect of Sanitary Work during the year.</p>
--

TABLE XXV.

Comparative Table of all Works carried out during the past ten years.

	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908		
Public Health and Tunbridge Wells Improvement Acts.	Complaints received and investigated	137	125	113	105	109	117	118	93	113	94	
	Premises in respect of which notices have been served	855	279	732	357	398	102	138	30	27	65	
	Houses, drains and sanitary fittings inspected	1194	439	936	869	1058	1022	946	822	656	718	
	Visits of re-inspection or to works in course of progress	5593	3888	3164	2603	2948	2687	2589	2053	2323	2053	
	Drains re-constructed	305	179	269	122	111	71	61	64	89	48	
	Drains repaired	168	169	71	64	33	40	45	34	32	43	
	Choked drains cleared and cleansed			21	28	18	20	32	41	28	21	
	Inspection chambers constructed	65	92	178	102	85	186	137	138	152	131	
	Inspection chambers repaired			6	9	20	13	9	13	16	32	
	Drain ventilation shafts erected or repaired	276	160	208	80	36	45	42	52	37	80	
	Soil pipes erected	34	16	40	66	41	61	73	48	35	29	
	Soil pipes repaired									6	25	
	W.C.'s re-constructed and provided with flushing apparatus	721	554	513	243	178	196	195	143	129	126	
	Flushing apparatus repaired					49	6	8			11	
	Efficient traps substituted for inefficient ones	913	476	557	387	273	385	283	287	300	257	
	Rain water and waste pipes disconnected from drains and made to discharge over properly trapped gullies	340	207	283	152	169	177	140	89	80	159	
	Yards and areas paved or paving repaired	471	260	312	161	112	78	78	69	80	63	
	New w.c. buildings and apparatus constructed			6	22	11	7	7	6	15	5	
	W.C.'s ventilated to outside air							2			2	
	W.C.'s cleansed and repaired							3	5		29	
	Defective w.c. buildings condemned and demolished							4			6	
	Urinals re-constructed							2		1		
	New sinks provided...				11	40	25	35	35	39	35	
	New lavatory basins provided										29	
	Old sinks provided with new waste pipes			6	11	9	11	45	63	73	119	
	Urinals provided at licensed premises	1	2	1	1	2	5	1	2	1	3	
	Eaves gutters repaired	3	2	2	5	13	13	5	2	21	53	
	Windows repaired		4	7	4	14	10		9	13	86	
	Floors repaired	2	7		8	24	6	4	4	12	41	
	Air inlets under floors provided							10	6	7	9	
	Roofs repaired	5	7	13	7	14	3	7	6	10	47	
	Defective cisterns abolished and water supply taken from rising main				43	42	8	38	12	2	11	
	Houses provided with sufficient supply of water	38	345	476	23	18	38	137	71	69	86	
	Samples of water submitted for analysis	7	11	26	10	4	12	32	26	9	3	
	Rooms cleansed and limewashed	49	51	58	37	116	88	92	82	66	179	
	Dustbins provided or repaired	235	35	78	105	189	27	69	23	17	81	
	Wells and cesspools abolished	3	10	31	3	4	9	3	1	5	3	
	Cases of overcrowding abated	2	1	2	1	1	5					
	Offensive ditches cleansed	2	2	2	4	4	6	2	6			
	Houses condemned and closed					5			1			
	Various improvements	53	38	26	41	38	42	39	56	79	81	
	Numbers of hours observation work	216	391	404	605	781	876	732	306	374	478	
	Pigs removed	9	23	18	14			2	19	13	23	
	Chicken, ducks, etc., removed									240	283	
	Inspections of stable yards and manure pits		2256	2794	2196	1574	2395	2466	3343	3119	3136	
	Offensive accumulations removed	56	38	121	321	244	608	496	684	745	848	
	Stables paved and drained		5	7	6	5	4	5	1	6	5	
	Inspections of slaughter-houses	14	21	25	96	81	68	106	98	189	140	
	Inspections of cowsheds, dairies and milkshops	104	121	225	324	243	249	49	129	130	128	
	New cowsheds constructed							2	1	3		
	Cowsheds paved and drained	2		1		5	3		1			
	Inspections of common lodging houses	27	57	104	261	378	72	25	44	92	112	
	Inspections of food shops	101	122	134	191	210	332	588	521	508	570	
	Parcels of food examined	409	520	601	584	620	1120	916	980	435	520	
	Food unfit for human consumption seized and destroyed, No. of lbs.	610	1178	450	403	1937	1344	358	1216	1261	1418	
	Visits to cleanse and disinfect cellars								153			
	Visits, interviews, etc., re work to be carried out								684	1246	1373	
	Factory and Workshops Acts.	Complaints received from Home Office					2	13	3	2	1	6
		Notices served					16	23	17			
		Inspections of factories, workshops, bakehouses, etc.	31	49	501	927	1078	1360	1529	1448	1712	1840
Workshops provided with sufficient and maintainable ventilation						21	33	27	3	1		
Workshop walls and ceilings cleansed and limewashed						92	74	42	9	48	65	
Workshop floors repaired								5			3	
Workshop roofs repaired								2			2	
Underground bakehouses made certifiable						7	7					
Underground bakehouses abolished						2	2				1	
New bakehouses provided						2	1				1	
Drains re-constructed or repaired						4	5				6	
New w.c.'s provided						4	6	2		1	2	
W.C.'s repaired						6	7	5			3	
Cases of overcrowding abated						3	5	7			1	
Yard pavings re-constructed or repaired						5	16	5			6	
Dustbins provided						6	4	2			3	
Drain inlets inside workshops abolished						5	9	2			1	
Efficient traps substituted for defective ones						9	13				21	
Workrooms measured up						20	38	19	14	18	19	
Visits to outworkers' premises									114	114	132	
Visits re Shop Hours and Seats Acts										74	209	
Infectious Diseases Acts	Visits to infected houses	919	405	324	244	748	572	501	274	249	228	
	Rooms disinfected	338	162	145	127	366	239	195	337	455	355	
	Articles of clothing disinfected	3040	2010	2081	1928	3620	4300	3460	7441	6888	7879	
	Loads of bedding removed to the steam disinfectors and returned to the respective owners	25	11	10	8	40	12	1	8	2	2	
	Visits to flush w.c.'s and drains				155	129	70	620	138	41	51	
	Public buildings disinfected								6	12	12	
	St. John's ambulance and private carriages disinfected								10	6	8	
	Wards at hospital disinfected								4	5	20	
Loads of bedding destroyed										1		
Food and Drug Acts	Samples of food examined in Public Health Department	37	52	61	74	86	164	216	142	131	141	
	Samples of food submitted for analysis	11	74	44	31	41	100	101	96	103	99	
	Samples of milk submitted for bacteriological analysis								1	9	8	
	Samples of food to Clinical Research Association for analysis								8			



Sanitary Certificates.—During the year the drains, sanitary fittings and general health condition of properties of an aggregate rateable value of £3678 were surveyed as a result of applications made for Sanitary Certificates, which are issued to owners or occupiers applying for same, provided the drains and sanitary fittings are in accordance with the prescribed regulations and certain fees are paid.

The commercial value of a house having the Sanitary Certificate is considerably enhanced ; it is, therefore, most important that all persons should obtain our advice when carrying out sanitary works and thus avoid the annoyance of having to pull work to pieces at some later period when a certificate may be required.

The income derived from the work during 1908 was £78 6s. 3d.

TABLE XXVI.

Showing Income derived from Sanitary Certificate Work
during the past ten years.

Year.	Aggregate Rateable Value of Properties Surveyed.	Amount of Application Fees received.	Amount of Certificate Fees received.	Total amount received.	What the Income would have been if all the Certificates were taken up that it was possible to grant.
	£	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1899	1968	22 1 0	20 7 8	42 8 8	64 6 5
1900	2079	22 1 0	11 15 6	33 16 6	55 2 10
1901	2315	27 6 0	10 7 1	37 13 1	73 10 6
1902	3069	24 13 6	9 0 6	33 14 0	81 1 11
1903	3651	29 7 0	27 0 4	56 7 4	104 1 3
1904	4711	32 0 6	50 14 2	82 14 8	120 3 8
1905	3178	26 5 0	29 3 7	55 8 7	85 0 0
1906	2712	27 6 0	14 1 1	41 7 1	44 16 9
1907	3440	63 15 7	9 1 0	72 16 7	103 10 9
1908	3678	67 5 9	11 0 6	78 6 3	108 15 3
Totals	30801	342 1 4	192 11 5	534 12 9	840 9 4

Food Inspection.—During the year about 13 cwt. of food was seized, which may be summarised as follows:—224lbs. ox livers, 100lbs. of beef, 20lbs. of tripe, 16lbs. pigs' kidneys, 23 wood pigeons, 80lbs. of whelks, 560lbs. apples and 395lbs. of condensed milk.

All these goods were taken before a Magistrate and condemned, and afterwards cremated in the Baths furnace.

No action was taken beyond the destruction. In most cases the retail vendor had not made any attempt to sell the goods, and was enabled, on our certificate being given, to recover from the wholesale merchant the money paid for goods that had become unfit for food in course of transit.

One hundred and forty-one samples of various foods were examined in the Public Health Office; 116 of these were obtained on Saturday nights and Sundays.

Ninety-nine samples of food were submitted to the Public Analyst under the Sale of Food and Drugs Act, with the result shown on Table XXVII; 85 of these samples were purchased by deputies. Thirty-eight of the 55 milk samples and 8 of the 29 butter samples obtained were taken in the public street, 76 samples of the 99 total were purchased informally, a method adopted at the suggestion of the Board of Agriculture. Of the 5 samples of milk of which the analyses were returned as adulterated, no action was taken in respect of the one containing one per cent. of added water, no action was taken in respect of the three samples from which a small amount of fat had been abstracted because they were taken informally and subsequent samples procured from the same persons proved to be genuine.

The vendor of the sample from which 32 per cent. of the milk fat had been abstracted came from a village outside the town. He gave a false name and address and he has not yet been identified.

The sample of the so-called butter that turned out to be nothing more or less than margarine was purchased from a man in the street who represented that he came from a country village. He has not been seen again. There is, however, reason to believe that the same man was successfully prosecuted in a town not far away and sent to prison. His method was to purchase a good quality margarine from a local shop, make it into rolls and sell it to unsuspecting persons as country butter.

In my report for 1907 the following paragraphs appeared:—

Five samples of sausages were obtained informally and found to contain a preservative varying from $5\frac{1}{2}$ to 35 grains per lb., and a resolution was passed by the Health Committee in regard thereto and a copy of the following letter was sent to every known dealer in the town, and a large amount of correspondence has taken place in consequence.

Town Hall, Tunbridge Wells,

11th February, 1908.

Dear Sir,

I am instructed by the Health Committee of the Town Council to call attention to the use of boracic acid or other preservatives in articles of food, especially in sausages.

The Committee have obtained a report from the Borough Analyst of his analysis of several samples of sausages submitted to him, and the analyses show in every case the presence of preservatives.

The Health Committee will take all necessary steps to prevent the use of preservatives injurious to health in articles of food, and I am instructed to notify sausage manufacturers and vendors to this effect.

Yours faithfully,

(Signed) W. C. CRIPPS,

Town Clerk.

Following this several letters were received from various Associations, Federations and wholesale sausage manufacturers beyond the district, and later on a deputation attended the Health Committee and they were informed that the Committee had nothing to add to their circular letter.

The circular letter has apparently had a very good effect, for the three samples of sausages that have been analysed recently were obtained from the three worst offenders, and instead of containing from 30 to $35\frac{1}{2}$ grains of boracic acid per pound of sausages, one of the samples contained an equivalent of five grains per pound and the other two had no added preservatives whatever.

Two samples of preservatives were analysed and reported on by the Public Analyst.

Observations have been taken in order to detect the offering for sale of any diseased food, especially any affected with tuberculosis, and it is satisfactory to be able to say that this is the first year during the past 15 that I have had no cause for complaint.

House Refuse.—The removal of house refuse is undertaken by the Council, and is under the immediate supervision of the Surveyor. Weather permitting, the removal is a weekly one, but in the Summer time an effort is made to remove once in every five days or oftener. In some parts of the business centres of the Borough the refuse is removed daily.

Very few genuine complaints have been received during the year.

The removal of stable refuse and pig wash are matters which receive much attention.

Common Lodging Houses.—There are five Common Lodging Houses on the register, providing accommodation for 115 persons. These houses are generally well kept, and the

TABLE XXVII.

Return of Articles submitted to the Public Analyst during
the year 1908, and the results of the Analyses.

Description of Samples taken.	No. of Samples.	Analyst's Report.	Proceedings.
Milk	50	Genuine.	
	No. 382	Milk 99%. Added water 1%.	No action.
	No. 470	Milk fat 2.75%, instead of 3%. The deficiency corresponds to the abstraction of 8% of the milk fat.	No action. (see note)
	No. 489	Milk fat 2.66%, instead of 3%. The deficiency corresponds to the abstraction of 11% of the milk fat.	No action. (see note)
	No. 493	Milk fat 2.80%, instead of 3%. The deficiency corresponds to the abstraction of 6% of the milk fat.	No action. (see note)
	No. 494	Milk fat 2.02%, instead of 3%. The deficiency corresponds to the abstraction of 32% of the milk fat.	No action. (see note)
Butter	28	Genuine.	
	No. 474	Foreign fats, <i>i.e.</i> , fats other than butter fat 77%; water, salt and curd 17%; butter fat not ex- ceeding 6%; boric acid or a preparation thereof, traces.	No action. (see note)
Margarine	6	Genuine.	
Vinegar	1	Genuine.	
Whisky	2	Genuine.	
Sausages... ..	2	Genuine.	
	No. 34	A boron preservative, equivalent to 5 grains per lb. Crystallised Boracic Acid.	No action. (see note)
Lard	3	Genuine.	

cleansing and limewashing has been carried out in conformity with the Bye-laws. One of the keepers was cautioned for permitting some slight overcrowding.

The vagrant is still permitted to wander about in a verminous and filthy condition—a disease carrier and a danger to the health of the community.

Some legislative measure to enable Sanitary Authorities to deal with these pests would be most useful, and is highly necessary.

Cowsheds, Dairies and Milkshops.—At the end of 1908 there were 28 cowkeepers and dairymen and 42 purveyors of milk on the register for the Borough. One old shed has been abolished in consequence of the water supply not being satisfactory.

All registered premises are periodically inspected, and have been found generally in a satisfactory condition. There are exceptions, however, which prove the necessity of some further stringent legislation restricting the sale and storage of milk in small general shops where such articles as paraffin are also stored.

London has a Pure Milk Bill in sight. One can only hope that its provisions will be extended and made compulsory throughout the country. There has recently been before me some unpleasant evidence of the need for much reform in this respect.

Slaughter Houses.—There are six private slaughter houses in the town, namely, the five registered ones that were established before 1847, and one new one which was built and licensed during 1907; this license is an annual one, so that if any nuisance is caused the license can be refused. Frequent inspections have been made of the premises both by day and night during killing hours, in order to inspect as far as possible the carcasses and viscera of animals slaughtered, to see that offal

was promptly removed, and cleansing and limewashing carried out in accordance with the Bye-laws.

Main Sewers, New Houses, &c.—Information has been obtained from the Borough Surveyor's Department, showing that main sewers in the following streets have either been provided, re-constructed or repaired :—

Camden Park.
 Campbell Road.
 Cambrian Road.
 Commercial Road.
 Culverden Avenue.
 Cromwell Road.
 Beltring Road.
 Garden Road.
 Rear of No. 22, Frant Road.
 London Road.
 Rear of Nos. 22, 23 and 24, London Road.
 Under No. 21, London Road.
 Madeira Park.
 Under Nos. 1, 3 and 5, The Pantiles.
 „ 2 and 4, Nevill Street.
 St. James's Road.
 Mount Pleasant Road.
 Molyneux Park.
 Bishop's Down.
 Hungershall Park.
 Southern Outfall Sewer.
 207 streets and roads have been regularly swept.
 84 new houses have been built.
 7,110 dustbins have been periodically emptied and
 cleansed.
 62 road gullies have been re-constructed and
 properly trapped.

Sanatorium.—One hundred and three cases were admitted into the wards of this useful institution, 84 of Scarlet Fever and 19 of Diphtheria. One death occurred from Scarlet Fever, in the case of a child from the Hawkenbury Convalescent Home, the return of whose death was forwarded to Battersea, where the child resided.

One death also occurred from Diphtheria. The case was *in extremis* when admitted, and only survived for a few hours.

It may be of some interest to say that during the past ten years only 14 deaths have occurred in the institution, *i.e.*, 4 from Scarlet Fever and 10 from Diphtheria. Most of these cases were *in extremis* when admitted.

The staff have again carried out their duties to my entire satisfaction.

Health of the Borough.—With the exception of the cases of children's ailments, already referred to, I am pleased to be able to state that the health of the Borough was in a most satisfactory condition at the close of the year.

I am,

Your obedient servant,

WM. STAMFORD.

METEOROLOGICAL NOTES AT TUNBRIDGE WELLS

For the Year 1908.

The total amount of sunshine shown by the Jordan (Photographic) Recorder was 1,873 hours 37 minutes. The mean is 1,822 hours 3 minutes. The most sunny day was June 26th, when 15 hours 30 minutes were recorded. There were 51 sunless days, 61 being the average.

The sunshine recorded in—

				Average.	
				Hrs.	Mins.
January	was	...	Hrs. 77	Mins. 36	62 23
February	„	...	93	47	88 22
March	„	...	131	22	148 35
April	„	...	163	25	184 47
May	„	...	230	24	234 7
June	„	...	276	27	231 55
July	„	..	225	20	250 15
August	„	...	235	8	225 31
September	„	...	177	49	185 3
October	„	...	146	17	114 30
November	„	...	92	40	68 3
December	„	...	23	22	50 52

10 hours of sunshine were first recorded on March 24th.

11	„	„	„	„	March 24th.
12	„	„	„	„	April 7th.
13	„	„	„	„	May 18th.
14	„	„	„	„	June 3rd.
15	„	„	„	„	June 26th.

15 hours of sunshine were last reached on June 30th.

14	„	„	„	„	July 29th.
13	„	„	„	„	Aug. 11th.
12	„	„	„	„	Aug. 16th.
11	„	„	„	„	Sept. 10th.
10	„	„	„	„	Oct. 4th.

The greatest heat in the sun was 126·2 degrees on July 26th.

It first reached	100	degrees	on	March	23rd.
„	„	110	„	May	1st.
„	„	120	„	May	19th.
It last reached	120	degrees	on	Aug.	4th.
„	„	110	„	Oct.	4th.
„	„	100	„	Oct.	29th.

The mean solar maximum for the year was 87·5 degrees.

The greatest heat in the shade was 82·3 degrees on June 4th.

It first reached	60	degrees	on	April	29th.
„	„	70	„	May	1st.
„	„	80	„	June	4th.
				(First and only time).	
It last reached	70	degrees	on	Oct.	4th.
„	„	60	„	Nov.	1st.

The lowest temperature, 4ft. above the ground on Mount Ephraim, was 14·9, on December 30th.

The hottest night was July 11th, when the thermometer did not go below 58·1 degrees.

The mean temperature of the year was 49·0, the average being 48·6.

The mean daily range was 13·9 ; the average is 14·7.

The mean temperature of each month was :—

			Deg.	Average. Deg.
January	...	...	35·5	37·5
February	...	...	40·2	38·1
March	...	..	39·3	41·6
April	...	...	42·9	46·4
May	...	...	54·9	52·3
June	...	...	58·8	58·6
July	...	...	61·2	61·5
August	...	...	59·0	60·5
September	...	...	55·6	56·8
October	...	...	53·7	49·2
November	...	...	49·7	43·5
December	...	...	38·3	38·5

The lowest temperature on the grass was, *minus* 1·9 degrees on the 30th.

The difference between the wet and dry bulbs at 9 a.m. was greatest, 10·4 degrees, on December 11th; the mean being 2·4 degrees.

The last frost in the air in Spring was on April 25th, and the first in the Autumn was on October 25th. The last on the grass in Spring was on May 11th, and the first in the Autumn was on September 13th.

The temperature of the soil at the depth of 1ft. was highest, 66·6 degrees, on July 31st; and lowest, 34·2, on several days in January. The mean was 49·9 degrees, which is the average.

It first reached 50 degrees on May 2nd.

It last reached 60 degrees on Sept. 21st.

It first reached 60 degrees on May 20th.

It last reached 50 degrees on Nov. 2nd.

The means for the months were :—

				Deg.	Average Deg.
January	...	...	...	34·9	38·9
February	..	...	...	38·5	38·5
March	...	...	...	39·6	41·2
April...	...	...	...	44·1	46·8
May ...	...	..	...	55·1	53·7
June ...	...	...	...	62·2	60·4
July ...	...	...	...	63·5	63·7
August	...	...	...	62·7	62·6
September	...		...	57·0	59·0
October	...	.	...	54·5	51·1
November	...	...	...	45·2	44·9
December	...	...	...	42·4	40·3

The Anemometer, showing the horizontal force of the wind, recorded 82,102 miles, the mean being 88,982·7 miles. The most windy day was November 22nd, when 710 miles were recorded. The calmest, November 30th, when only 28 were shown.

The wind at 9 a.m. was N. on 33 days.

"	"	N.E.	"	39	"
"	"	E.	"	50	"
"	"	S.E.	"	37	"
"	"	S.	"	35	"
"	"	S.W.	"	57	"
"	"	W.	"	60	"
"	"	N.W.	"	54	"

One day it was quite calm.

The rainfall amounted to 29·53 inches. The average is 30·12 inches. It fell on 174 days, the average being 179·9. It came as snow on 16 days. The most rain that fell on one day was 1·36 inches, on January 7th.

The rainfall in—

			ins.	Average ins.
January, was	...	...	1·91	2·76
February "	...	...	1·23	2·17
March "	...	...	3·11	2·34
April "	...	...	2·48	1·79
May "	...	...	1·68	1·69
June "	...	...	2·29	2·34
July "	..	..	3·75	2·10
August "	...	...	4·81	2·33
September "	...	...	1·77	2·10
October "	...	...	1·93	4·19
November "	...	...	1·15	3·44
December "	...	...	3·42	3·02

The mean amount of cloud at 9 a.m. was 6·7, 6·8 being the average ; 10 representing overcast.

There were 27 fogs, and it was slightly foggy on 14 other mornings.

There was thunder and lightning on 19 days, but on only three occasions was it near.

F. G. S.

